

The Effect of Perceived Value, Customer Trust, and Security on Customer Satisfaction in Online Two-Wheeled Transportation Services in Sukabumi

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Abstract

This study aims to analyze the influence of perceived value, customer trust, and security on customer satisfaction levels with online transportation services in Sukabumi. The study used a quantitative approach by distributing questionnaires to 200 online transportation users in Sukabumi. Data analysis included validity and reliability tests, classical assumption tests, partial T-tests, simultaneous F-tests, and coefficient of determination tests. The results showed that all three variables simultaneously had a significant effect on customer satisfaction. However, partially, only trust and security had a significant effect, while perceived value did not.

Key words: perceived value, trust, security, customer satisfaction

INTRODUCTION

Online transportation in Indonesia has experienced very rapid growth in daily activities. With ease of access and time efficiency, many people have chosen it for daily activities. In addition, online transportation has created new employment opportunities for many individuals to earn income as drivers, food/beverage courier services, and goods delivery services (Makarim, 2023). According to the SEA e-economy 2024 report compiled through collaboration between Google, Temasek, and Bain & Company, the online transportation sector in Indonesia recorded transaction values reaching US \$9 billion, roughly equivalent to 141.9 trillion rupiah in 2024. This figure rose by 13% from the previous year, driven by an increase in the number of drivers and changes in service prices (lukman nur hakim, 2024)

Despite increasing usage, cases of dissatisfaction have emerged, such as verbal sexual harassment by a Gojek driver against a female passenger in Malang, East Java, which highlighted risks to safety, comfort, and satisfaction, particularly for women. Gojek responded firmly by terminating the driver's partnership and providing psychological and legal assistance (Detikcom, 2021). Other cases highlight issues such as delays in pick-up, unprofessional behavior including ignoring customer requests, and inadequate knowledge of road routes, which can disrupt comfort and even endanger customer safety. These cases emphasize the importance of safety, comfort, and trust in shaping customer satisfaction in online transportation (Gumelar, 2023)

Based on data from an independent study survey batch 7, online transportation was shown to be the primary choice in Java due to its convenience, attractive promotions, affordable prices, and service security. 55.7% of respondents had used the service several times, and 29.6% used it regularly. As many as 72.9% felt satisfied, although 60.1% had experienced a negative experience (SUMARDI, 2024).

Online transportation services significantly affect customer satisfaction. Customer satisfaction is the feeling that arises after a person assesses the level between the service level or product quality they experience and what they initially anticipated or expected (Tahanisaz, 2020). Previous research results (Situmorang & Wijaya, 2025) found that customer satisfaction is achieved when expectations align with the experience of using a product or service. This satisfaction is important as a key to business success, because satisfied customers tend to be more loyal, make repeat purchases, and make recommendations to others. According to Indrasari (2019) in (Apriasty & E. Simbolon, 2022) customer satisfaction consists of five factors: 1) Product quality; 2) Service quality; 3) Emotional; 4) Price; and 5) Cost.

Perceived value also influences the level of customer satisfaction. According to (Dino & Suryadi, 2021) consumer views about what they get compared to what they give up when buying a product or service is known as perceived value. In addition, perceived value also shows consumers' efforts to compare products or services based on aspects of benefit, quality, and price. Previous studies have shown (Saskia et al., 2025) that simultaneously, service quality and perceived value significantly affect user satisfaction. However, only perceived value affects user satisfaction partially.

Furthermore, consumer trust is also one of the important elements that affects the choice of online transportation. This is closely related to

the level of satisfaction and is considered crucial because customers often make payments before receiving services, so business partnerships can only run smoothly if there is mutual trust between both parties (Islam et al., 2021). According to (Rita & Djar, 2024) the greater the understanding of risk, such as concerns about security and safety aspects or dissatisfaction with services, the lower the consumer's trust in the service provider will be. In a previous study by (Rachmawati & Ananda, 2022), it was revealed that customer trust has a partial impact on user satisfaction in Go-car Protect+ online transportation services in Indonesia.

In addition to perceived value and customer trust, security also affects the protection and safety of customers in online transportation. According to (Fong et al., 2023), security has a positive effect and there is a relationship between the level of customer satisfaction and online transportation services. Based on the opinion of (Suman et al., 2025), customers pay great attention to travel safety, direct travel security, and data security. This factor affects the overall customer experience and satisfaction level.

Considering the findings from previous research above, which generally focuses on one or two variables only, there is a research gap in this study which examines the influence of Perceived Value, Customer Trust, and Security on Customer Satisfaction in online transportation services in Sukabumi simultaneously. The novelty lies in combining these three important variables in one research model, which has not been widely explored integratively in the context of online transportation in non-metropolitan areas such as Sukabumi. This research was conducted with user survey data in the Java region. To understand the extent to which perceived value, customer trust, and security affect customer satisfaction in online transportation services in Sukabumi, building a

positive image and strong position in the eyes of the general public depends heavily on ensuring customers are satisfied with the services they receive.

Therefore, the main objective of this research is to analyze how elements such as perceived value, customer trust, and security have a positive impact on the level of customer satisfaction when using online transportation services in Sukabumi. The findings of this research are expected to theoretically enrich existing knowledge regarding principles of management or marketing, particularly in the context of online transportation services, as well as practical contributions for online transportation service providers in Sukabumi to improve marketing and service strategies. By understanding the influence of each element such as perceived value, trust, and sense of security on customer satisfaction, companies can enhance these aspects so that customer satisfaction and loyalty increase.

RESEARCH METHOD

Location, Population and Sample

This study was conducted in Sukabumi city, using a quantitative approach. The target population consists of all active users of online transportation services in Sukabumi. Because this target population is potentially unlimited and the focus is on users of online transportation services in Sukabumi, the sample was determined using the Cochran formula, with a confidence level of 90% and an error rate of 5%. The calculation resulted in an appropriate sample size of 271 respondents selected through a non-probability sampling technique of the purposive sampling type. However, due to limitations of time and resources, a sample of 200 respondents was used, selected from those who met the criteria of online transportation service users, to ensure data accuracy. The

criteria for selecting respondents for this study are as follows:

- 1) Individuals who regularly use online transportation services in Sukabumi.
- 2) Participants must be at least 17 years of age.
- 3) Individuals must have used online transportation services at least three times.
- 4) Individuals who use two-wheeled online transportation.

Research Data Analysis Tools

Data was collected through questionnaires containing questions that had been arranged with a certain structure, where respondents were asked to answer honestly for each question provided. The research instrument used involved distributing questionnaires compiled based on various indicators taken from existing concepts and previously conducted studies, as well as using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) with the following descriptions:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly Agree

Research Analysis Method

Data collected from distributing questionnaires to respondents was processed and analyzed using multiple linear regression techniques and aided by SPSS computer program software to test the influence both partially and simultaneously. This analysis technique was chosen to identify the influence of perceived value (X1), customer trust (X2), and security (X3) on customer satisfaction (Y), both individually and jointly. Data processing can be carried out through several stages before regression analysis, including:

Descriptive analysis conducted to provide an overview of respondent characteristics such as age, gender, intensity of using online transportation services, and respondent responses to each variable. Next, Validity and Reliability Tests, followed by Classical Assumption Tests such as Normality Test, Multicollinearity Test, and Heteroscedasticity Test, and finally hypothesis testing conducted through T-Test (Partial), F-Test (Simultaneous), and Coefficient of Determination Test.

RESULTS AND DISCUSSION

Demographics

According to data from the research sources, there were 200 individuals who met the qualifications as two-wheeled online transportation customers in Sukabumi. This information was collected through an online survey using Google Forms, which included 34 males with a percentage of 17%, and 166 females with a percentage of 83%. Furthermore, individuals aged between 17-25 years constituted the largest age demographic, totaling 149 individuals with a percentage of 74.5%. In terms of occupation, the most dominant group was students/university students, with 95 individuals representing 47.5% of the total. The majority of participants used the Gojek Bike service, with 75 users representing 37.5%. The most common frequency of use was 1-3 times per week, with 160 respondents representing 80% of the total.

Table 1. Respondent Demographic Data

Category	Frequency	Persentase (%)
Male	34	17%
Female	166	83%
Total	200	100%

Instrument Testing

Validity Test

Based on the analysis conducted, each question item related to the variables of Perceived Value (X1), Customer Trust (X2), Security (X3), and Customer Satisfaction (Y) has an r-count value greater than r-table and significance smaller than 0.05. This indicates that all items used in the research instrument are valid and suitable for proceeding to the next stage of analysis.

Reliability Test

Based on the reliability test results, it is shown that perceived value scored 0.914, Customer Trust 0.969, Security 0.825, and Customer Satisfaction 0.955. All were declared reliable because the results exceed 0.70, and this research instrument is suitable for use as a measurement tool for the variables.

Table 2. Reliability Test Results

Variable	Cronbach's Alpha	Description
Perceived Value (X1)	0,914	Reliable
Costumer Trust (X2)	0,969	Reliable
Security (X3)	0,825	Reliable
Customer Satisfaction (Y)	0,955	Reliable

Source: Data processed using SPSS version 31 (2026)

Classical Assumption Tests

The normality test using Kolmogorov-Smirnov produced an Asymp. Sig. (2-tailed) value of $0.200 > 0.05$, so the data is declared to be normally distributed. This result is reinforced by the Normal P-P Plot graph which shows the data spreading along the diagonal line.

The multicollinearity test shows Tolerance values for Perceived Value = 0.377, Customer Trust = 0.322, and Security = 0.585, with VIF values each below 10.00. This indicates there is no multicollinearity between the independent variables.

The heteroscedasticity test through the scatterplot graph shows the points spread randomly on both sides of the zero axis without a clear pattern, so it can be concluded that there is no heteroscedasticity in the regression model.

Multiple Linear Regression Analysis

Based on the results of the multiple linear regression analysis, the following equation was obtained:

$$Y = 14.812 + 0.20X_1 + 0.160X_2 + 0.364X_3 + e$$

Table 3. Multiple Linear Regression Test Results

Variable	Coefficient (B)	Sig.	Description
Constant	14,812	-	-
Perceived Value (X1)	0,20	0,730	Not Significant
Customer Trust (X2)	0,160	< 0,05	Significant
Security (X3)	0,364	0,010	Significant

Source: Data processed using SPSS version 31 (2026)

The constant value of 14.812 indicates that if all independent variables have a value of 0, customer satisfaction has a value of 14.812. The regression coefficient of Perceived Value (0.20) shows that every one unit increase in perceived value will increase customer satisfaction by 0.20 units. The coefficients for customer trust (0.160) and security (0.364) also show a positive relationship with customer satisfaction.

Hypothesis Testing

T-Test (Partial)

The T-Test results show that: (1) Perceived Value (X1) has a significance value of $0.730 > 0.05$, so H1 is rejected — perceived value does not have a significant partial effect on customer satisfaction; (2) Customer Trust (X2) has a significance value < 0.05 , so H2 is accepted — customer trust has a positive and significant effect on customer satisfaction; (3) Security (X3) has a significance value of $0.010 < 0.05$, so H3 is accepted — security has a positive and significant effect on customer satisfaction.

F-Test (Simultaneous)

The F-Test results show an F-count value of $38.757 > F\text{-table } 2.65$ with a significance level < 0.05 . This indicates that Perceived Value (X1), Customer Trust (X2), and Security (X3) simultaneously have a significant effect on Customer Satisfaction (Y), so H4 is accepted.

Coefficient of Determination

The R Square value of 0.372 and Adjusted R Square of 0.363 indicate that Perceived Value, Customer Trust, and Security together are able to explain 37.2% of the variation in customer satisfaction, while 62.8% is explained by other factors outside the model.

Discussion

Perceived value does not have a significant effect on customer satisfaction (sig. 0.730). This result differs from the findings (Dino & Suryadi, 2021) who found a positive effect of perceived value. This non-significance is suspected to be caused by the characteristics of users in Sukabumi who prioritize aspects of trust and security over rational assessments of service value. In addition, the limitation of a local sample may be a limiting factor for generalization.

Customer trust has a positive and significant effect on customer satisfaction. This finding is

consistent with the theory of (Kreikenberg, 2013) and is supported by (Aisah et al., 2021) and (Wattimena & Sin, 2020). Trust built through service reliability, system transparency, and company responsiveness has been proven to meaningfully increase customer satisfaction.

Security has a positive and significant effect on customer satisfaction (sig. 0.010). This finding supports (Lewis and Thygerson, 1977) and is consistent with (Fichan & Narundana, 2022) and (Fong et al., 2023). In the context of online transportation, security encompasses the protection of personal data, travel safety, and the reliability of the payment system, which directly affect the user's sense of comfort and satisfaction.

Simultaneously, all three variables significantly influenced customer satisfaction, contributing 37.2%. This indicates that customer satisfaction is multidimensional and influenced not only by rational assessments of service value but also by psychological trust and a sense of security experienced by customers.

CONCLUSION

Based on the analysis results, it can be concluded that: (1) Perceived value does not have a significant partial effect on customer satisfaction of online two-wheeled transportation services in Sukabumi; (2) Customer trust has a positive and significant partial effect on customer satisfaction; (3) Security has a positive and significant partial effect on customer satisfaction; (4) Perceived value, customer trust, and security simultaneously have a significant effect on customer satisfaction, contributing 37.2%.

The managerial implications of this study are that online transportation companies, particularly those operating in the Sukabumi area, need to focus more on improving security and customer trust. Concrete efforts include improving driver verification systems,

transparency of data protection policies, and increasing customer service responsiveness. Future research is recommended to expand the scope of the study area and add other variables such as service quality and price to obtain a more comprehensive understanding.

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